

**Metal mixtures
called alloys
not chemically combined
share some
physical properties
more useful**

**Minerals are
naturally occurring
elements or compounds
rocks and soil**

Minerals are solids

Minerals form naturally

Minerals are inorganic

definite composition

**Atoms are arranged
in regular patterns**

**crystals sign
of inner pattern**

**Different arrangements
of same atoms
different minerals
diamond versus graphite**

**Three-dimensional
carbon versus
two-dimensional
carbon**

**Crystal size
based on
speed of cooling**

**slow cooling
gives big crystals**

**fast cooling
gives small crystals**

**Grow by adding
groups of atoms
known as
crystallization**

**Largest group
is Silicates
contain Silicon
and Oxygen**

**abundant elements
Earth's crust**

**One group
of Silicates**

**Iron and Magnesium
ferromagnesian
usually dark
and dense**

**Other group
little or no
Iron or Magnesium
non-ferromagnesian
like Quartz
or Feldspar
Feldspar decays
makes clay**